

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Graham, et al.  
Serial No.: 09/703,941  
Filed: November 1, 2000

Examiner: Woo, Issac M.  
Art Unit: 2172  
Confirmation No.: 4046

For: **SYSTEM AND METHOD FOR DATA COLLECTION, MANAGEMENT AND ANALYSIS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

Sir:

**DECLARATION OF DOUGLAS A. GRAHAM UNDER 35 U.S.C. 1.132**

1. My name is Douglas A. Graham, I am a co-inventor of the invention disclosed and claimed in the above-referenced application, and I submit this declaration in support thereof.
2. I am currently employed as Manager and President of Macro\*World Research, a subsidiary of Wachovia Corporation. My academic background is in the field of data analysis theory, having received a Bachelor of Science degree in Mathematics in 1968 from Jacksonville University, and a Masters of Science degree in Engineering with concentration in Operations Research in 1972 from the University of Florida. I have also studied quantitative business models while pursuing a Ph.D. in business administration at the University of Florida. My academic and professional work over nearly four decades has encompassed many hundreds of analyses covering all types of micro-economic level of individual company financial and economic data time series, national level economic time series data, and global data time series modeling covering foreign countries and international trade flows.

3. I understand that the claims of the above-referenced application have been rejected as being anticipated by U.S. Patent No. 6,202,207 to Donohue. More specifically, I understand that the Examiner has taken the position that Donohue discloses the step of determining whether each remote database found during the searching is comprised of the desired type of data, wherein the desired type of data is time series data. I further understand that the Examiner is relying on Item 60 in Figures 2 and 3, and col. 10 lines 16 –58 to support the assertion that Donohue discloses the step of determining whether each remote database found during the searching is comprised of the desired type of data, wherein the desired type of data is time series data.
4. Based on my education and experience, the phrase “time series data” is understood to mean a data set having multiple data points, each of which is associated with a point in time. This is discussed in the Specification at p. 5, lines 18-20. This definition is consistent with the leading treatises on statistics and forecasting. For example, in Time Series: Theory and Methods, Second Edition (1996), Peter J. Brockwell and Richard A. Davis, Chapter 1, Stationary Time Series, 1.1 Examples of Time Series, page 1, defines a “time series” as follows: “A time series is a set of observations  $X_t$ , each one being recorded at a specified time  $t$ .” Another example is The Analysis of Time Series, An Introduction, Sixth Edition (2004), Chris Chatfield, Chapter 1, Introduction, 1.1 Some Representative Time Series, page 1, states as follows: “A time series is a collection of observations made sequentially through time.” “Many time series are routinely recorded in economics and finance. Examples include share prices on successive days, export totals in successive months, average incomes in successive months, company profits in successive years, and so on.” So, in essence, the term “time series data,” as commonly

understood in the business, financial, and economics professions, consists of a series of data pairs, namely a date and a number, for discrete time periods of similar frequency.

5. I have reviewed the Figures and text in Donohue cited by the Examiner to support the assertion that Donohue discloses the step of determining whether each remote database found during the searching is comprised of the desired type of data, wherein the desired type of data is time series data. First, the Office Action mischaracterizes and relies on Item 60, which is shown in Fig. 2 and Fig. 3 of Donohue. The specification in Donohue describes Item 60 as follows:

The entries in the software updates list 60 include for each software product version 110 an identification 120 of the software resources required for applying the update and an identification 130 of its prerequisite software products and their version numbers. In some cases, the required resources are complete replacement versions of software and associated installation instructions, and deletion instructions for the software being replaced. In other cases, the resources comprise patch code for modifying an existing program (e.g., for error correction) and the patch's installation instructions.

Col. 9, line 59-col. 10, line 2.

6. The Examiner, however, has characterized Item 60 as a "time series table." Office Action at 3. Item 60 is simply a list of software updates 120. See col. 9, lines 51-53. It also includes information about the Product Set 110 to which the software update 120 relates, and the prerequisites 130 for each software update 120. Item 60 does not contain any data point that is associated with a point in time.
7. In contrast, I respectfully direct the Examiner's attention to a classic example of time series data, namely, a quarterly time series data for U.S. Gross National Product as excerpted below from the U.S. Department of Commerce, Bureau of Economic Analysis, news release January 31, 2007, Gross Domestic Product: Fourth Quarter 2006 (Advance):

2006-Q4, 13487.2  
2006-Q3, 13322.6  
2006-Q2, 13197.3  
2006-Q1, 13008.4  
2005-Q4, 12730.5.

As can be seen from the above, there are multiple data points, each of which is associated with a point in time.

8. The Office Action also relies on Col. 10 lines 16 –58 of Donohue to support the incorrect assertion that Donohue discloses the step of determining whether a remote database is comprised of time series data. The entire text of col. 10 lines 16 –58 is reproduced below:

The operation of an updater component will now be described, with reference to FIGS. 3 and 4. When an installed updater component executes, in response to completion of a cycle period or in response to a request from another software product's updater component, its first action is to initiate 200 a search for available updates to the particular software product. It provides to one or more search engines 90 search arguments comprising the product identifier and product version release number obtained by the updater component at install time. Software vendors wishing to benefit from the services of the updater component provide via their Web sites a list 60 of available product updates referenced by product identifier and release number 110 (or some other consistent naming convention is used). The search identifies the relevant Web site 140 on which the update information is available. A URL identifying the relevant Web site 140 for update information is returned 210 to the updater component as a result of the search. If the initial attempt to start a search engine is unsuccessful, then the updater component will attempt to start a different search engine (which may be in a different geographical location to the first), but in alternative embodiments could wait for a preset time period and then retry.

The updater component uses the URL to access 220 the list 60 and downloads 230 a file 160 comprising the portion of the list 60 of available updates which relates to the particular product. The updater component then performs steps 240-280 as shown in FIG. 4. Each file 160 contains message digests (e.g. MD5) which are digitally signed. The retrieved file 160 is then analyzed 240 using a digital signature checking algorithm (such as the algorithm described in U.S. Pat. No. 5,231,668). This verifies that the file 160 represents the correct software updates list for the

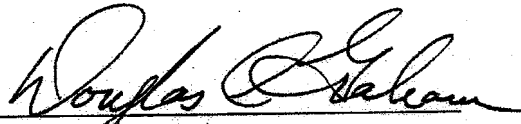
particular software product, and that the file has not been tampered with since signing. Also, checking for the digital signature is a useful way of filtering the results of the search since these may include a plurality of Web page URLs other than the correct one (the search may find other pages which have a reference to the named product version, including pages not published by the software vendor). If an attempt to download and verify a file is not successful, then the updater component moves on to the next URL found in the search.

Nowhere in col. 10 lines 16–58 is there any disclosure of the step of determining whether a remote database is comprised of time series data. Rather, it discloses a process for updating software components, which includes searching for available updates for a particular software component, downloading a file comprising a list of available updates for the particular software component and verifying that the downloaded list is the correct list of available software updates. Again, nowhere in the cited passage, or elsewhere in Donohue, is there any disclosure of determining whether the specific information being searched for is time series data. Indeed, there is no mention of the terms "time series data" or "time-series data" anywhere in Donohue. This is a well-known, well understood and accepted term for a series of data pairs consisting of a data point and an associated point in time, which is defined and/or referenced in over 9,000 texts (according to a Google Book search) relating to data analysis and data management. Given the ubiquitous use of the term in the art, if Donohue had intended to disclose determining whether a database is comprised of "time series" data, he would have said so.

9. I hereby declare that all statements made herein of my own knowledge are true and that any statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the

United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

This is the 19th day of March 2007.

  
Douglas A. Graham